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| EXAMINER |
|---|
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | | Application No. | Applicant(s) |
|---|---|---|---|
| **Office Action Summary** | | 10/676,409 | ZHANG ET AL. |
| | | Examiner | Art Unit |
| | | OLUSEYE IWARERE | 3687 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *12 December 2008*.

2a)☒ This action is **FINAL.**     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some *  c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

1.      This communication is in response to the correspondence sent on December 12,

2008. The remarks have been considered below.


### Claim Rejections - 35 USC § 103

2.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.


3.      **Claims 1, 2, 4, 5, 7 – 10, 13 – 16, 18 and 19 are rejected under 35 U.S.C.**

**103(a) as being unpatentable over Arunapuram et al. (2002/0019759) in view of**

**Morimoto (7,035,856).**

        **As per claim 1,** Arunapuram discloses, an apparatus comprising:

a demand order module to receive an order for a set of products to be shipped to a

target location ([0034]; via specifically, referring to FIG. 2, after shipping orders are

received 201, a first manager module);

        an order guideline module including a set of constraints for a shipment from one

of a set of a source locations to the target location ([0034]; via the problem-solver ("PS")

module 300 of FIG. 3, plans at step 202 optimal freight movements between a initial

pick-up location and a final drop-off location); and

a processing device to execute the route determination module ([0034]; via at step 203, the optimal freight movements are planned in step 202 are executed and tracked by a second manager module, the execution ("EX") module 400 of FIG. 4).

However, Arunapuram fails to explicitly disclose a route determination module to select at least one source location from the set of source locations having the set of products when the order for the set of products is fulfilled based on a cost factor and a utilization of a capacity of a set of transports.

Morimoto teaches a system and method for tracking and routing shipped items with the feature of a route determination module to select at least one source location from the set of source locations having the set of products when the order for the set of products fulfilled based on a cost factor and a utilization of a capacity of a set of transports ([abstract]) discusses determining a route from a subset of source locations.

From this teaching of Morimoto, it would have been obvious to modify the system and method of Arunapuram, to include the route determination module taught by Morimoto in order to provide adequate routing for the items.

**As per claim 2,** Arunapuram further discloses comprising:

a storage device to store at least one of the demand order module, the guideline module, and the route determination module ([0007]; via the parcel ID and its location information are then transmitted by the host computer to one or more web servers, each

including a database for storing a record of the parcel ID's scanned at each location).


   **As per claim 4,** Arunapuram discloses,

   prioritizing a set of shipping rule groups based on a cost factor associated with
the set of source locations and the target location ([0055]; via a particularly
advantageous feature of the present invention involves the use of priority routing rules
in the PS database that enable a transportation planning manager to influence the
creation of loads and freight movements when lowest cost is not the most important
consideration);

   and selecting a subset of the set of source locations and a subset of the shipping
rule groups based on the cost factor and a utilization of a capacity of a set of transports
([0055]; via typically, after it identifies all potential suitable freight movements for each
order, the PS logic identifies the lowest cost transportation solution).
However, Arunapuram fails to explicitly disclose identifying a set of source locations
having a set of desired resources for a target location when an order for the set of
desired resources is fulfilled.

   However, Arunapuram fails to explicitly disclose identifying a set of source
locations having a set of desired resources for a target location when an order for the
set of desired resources is filled.

   Morimoto teaches a system and method for tracking and routing shipped items
with the feature of identifying a set of source locations having a set of desired resources

for a target location when an order for the set of desired resources is fulfilled ([abstract]

discusses identifying a set of source locations).

From this teaching of Morimoto, it would have been obvious to modify the system

and method of Arunapuram, to include the identifying of a set of source locations taught

by Morimoto in order to further provide adequate routing for the items.


**As per claim 5,** Arunapuram discloses, wherein selecting comprises:

searching iteratively through the set of shipping rule groups ([0113]; Once

received, carriers can review tender offers and electronically provide an acceptance or

decline (the EX monitoring this acceptance/decline communication at step 606) of the

tender offer to the execution module 400 via response interface 412. The EX logic can

then re-route any declined orders back to the problem-solver module 300 as

unexecuted orders 411 through unexecuted freight movement interface 410 for

selection of a different carrier or transportation solution. Fig. 6 also illustrates iterative

searching through a control loop) in order of priority for a shipping solution ([0055]; A

particularly advantageous feature of the present invention involves the use of priority

routing rules in the PS database that enable a transportation planning manager to

influence the creation of loads and freight movements when lowest cost is not the most

important consideration).

**As per Claim 7,** Arunapuram discloses, wherein the set of shipping rule groups includes a default group of shipping rules ([0057]; via These rates are specified in a plurality of tables which are stored in the PS database 402 for use during batch runs. such rate tables are stored therein for each carrier type).

**As per claim 8,** Arunapuram discloses, wherein the utilization of the capacity of the set of transports is a maximum utilization ([0058]; via when the PS logic begins its batch run at step 603 to generate an optimal freight movement plan (for all orders received since its last batch run) it performs several sub-steps which are detailed in FIG. 7).

**As per claim 9,** Arunapuram discloses, further comprising:

altering a size of a shipment to utilize a maximum capacity of the set of transports ([0059]; via during a batch run, the problem-solver logic 301 first consolidates various orders and shipments into transportation loads at sub-step 701. Then, a determination is made at sub-step 702 for each load as to the best shipping mode).

**As per claim 10,** Arunapuram discloses, an apparatus comprising:

a means for ordering a set of shipping rule groups and a subset of source locations based on a cost of shipping to a target location from the set of source locations ([0059]; via the system uses various types of information including data

detailing the required freight movements, tables itemizing resource availability and cost,

operational requirements of the industry, and general company rules and policies

entered by the company's transportation planning manager); and

      a means for selecting a subset of the set of shipping rule groups and a subset of

the set of source locations ([0010]; This functionality would also allow an organization to

dynamically select crossdock and pool point locations (i.e., transportation hubs or

through-points) based upon the organization's business requirements and costs) based

on the cost of shipping the set of resources from the subset of the set of source

locations to the target location and utilization of a set of transports ([0055]; via a

particularly advantageous feature of the present invention involves the use of priority

routing rules in the PS database that enable a transportation planning manager to

influence the creation of loads and freight movements when lowest cost is not the most

important consideration);


      However, Arunapuram fails to explicitly disclose a means for determining a set of

source locations having a set of resources when an order for the set of resources is

fulfilled.

      Morimoto teaches a system and method for tracking and routing shipped items

with the feature of a means for determining a set of source locations having a set of

resources when an order for the set of resources is fulfilled ([abstract]) discusses

determining a route from a subset of source locations.

From this teaching of Morimoto, it would have been obvious to modify the system and method of Arunapuram, to include means for determining a set of source locations taught by Morimoto in order to provide adequate routing for the items.

**As per claim 12,** Arunapuram discloses, wherein the set of shipping rule groups includes a default shipping rule group ([0054]; via transportation planning managers can, for example, by using the manager interface 404, define route planning rules, create templates that define legs for multiple leg routes and multiple mode routes (the entering of such templates, while done at step 601 prior to a batch run, will be discussed in detail below with respect to step 603).

**As per claim 13,** Arunapuram discloses, further comprising:

a means for determining all source locations having the set of resources ([0034]; via the problem-solver ("PS") module 300 of FIG. 3, plans at step 202 optimal freight movements between a initial pick-up location and a final drop-off location).

**As per claim 14,** Arunapuram discloses, a machine readable medium containing therein a set of instructions which when executed cause a machine to perform a set of operations comprising (pg 18, col. 1, lines 59 - 61; via program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for managing transportation operations for a plurality of orders):

prioritizing a set of order guidelines based on a cost factor for shipping the set of products from the set of source locations to the target location (pg 18, col. 2, lines 6 - 10; via wherein said planning step comprises the sub-steps of generating a plurality of potential freight movements to satisfy each order and identifying the lowest cost freight movement from said plurality of potential freight movements);

and determining a subset of the set of order guidelines and a subset of source locations (([0010]; This functionality would also allow an organization to dynamically select crossdock and pool point locations (i.e., transportation hubs or through-points) based upon the organization's business requirements and costs) based on the cost factor and utilization of a capacity of a set of transports (pg 18, col. 2, lines 49 - 52; via wherein said accounting step comprises the sub-steps of receiving invoices from carriers for executed freight movements, allocating actual costs detailed in said invoices to orders).

However, Arunapuram fails to explicitly disclose identifying a set of source locations having a set of desired resources for a target location when an order for the set of desired resources is filled.

Morimoto teaches a system and method for tracking and routing shipped items with the feature of identifying a set of source locations having a set of desired resources for a target location when an order for the set of desired resources is fulfilled ([abstract] discusses identifying a set of source locations).

From this teaching of Morimoto, it would have been obvious to modify the system
and method of Arunapuram, to include the identifying of a set of source locations taught
by Morimoto in order to further provide adequate routing for the items.

**As per claim 15,** Arunapuram discloses, the machine readable medium of claim
14, having further instructions stored therein, which when executed cause a machine to
perform a set of operations, further comprising (pg 18, col. 1, lines 59 - 61; via program
storage device readable by a machine, tangibly embodying a program of instructions
executable by a machine to perform method steps for managing transportation
operations for a plurality of orders):

searching iteratively through the set of order guidelines in order of priority for a
shipping solution (pg 18, col. 2, lines 13 - 15; via wherein said plurality of potential
freight movements are of types selected from the group consisting of direct routes from
origin to destination).

**As per claim 16,** Arunapuram discloses, the machine readable medium of claim
14, wherein the set of order guidelines includes a default order guideline (pg 18, col. 2,
lines 43 – 46; via wherein said status updates are used to automatically update records
contained in an order database, said database being accessible by customers, carriers,
and locations to review the status of select orders).

**As per claim 18,** Arunapuram discloses, wherein no product of the set of products is associated with more than one default order guideline ([0038]; via orders received through the order interface 306 have a single origin/destination pair).

**As per claim 19,** Arunapuram discloses, having further instructions stored therein, which when executed cause a machine to perform a set of operations, further comprising (pg. 18, col. 1, lines 59 - 61; via program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for managing transportation operations for a plurality of orders):

altering a size of a shipment to utilize a maximum capacity of the set of transports (pg. 19, col. 2, lines 3 - 7; via wherein said problem-solver constructs said optimal freight movements in batch runs, and wherein said batch runs comprise generating a plurality of potential freight movements to satisfy each order).

6.    **Claims 3, 6, 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arunapuram et al. (2002/0019759) in view of Cappellini (2003/0014286).**

**As per claim 3,** Arunapuram et. al. discloses the claimed invention but fails to explicitly disclose, a loading module to simulate a loading of the shipment of the set of products into the set of transports.

Cappellini teaches a search and retrieval system of transportation-related flexibility defined paths, with the feature of a loading module to simulate a loading of the

shipment of the set of products into the set of transports ([0181]; in the preferred

embodiment, it is a multidimensional spatial system capable of handling the three

dimensions of a physical object, i.e. the width, length and height and the coordinate

position within a predetermined space, for example a container) ([0182]; These types of

applications can make a mathematical model of the required transport capacities such

as the loads, as well as of the available transport capacities such as the cargo

containers, in order to substantially simulate the loading conditions within the containing

space.) ([0183]; Apart from performing loading operations and optimizations, this type of

application can be used or easily adapted for the sole simple use of determining

availability of space or capacity, for a new required transport capacity, i.e. to check if a

load can conveniently fit in a transporting container that is empty or partially full with

other loads).

From this teaching of Cappellini, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to modify the transportation

planning, execution and freight payment manager method of Arunapuram, to include the

simulation of loading shipments taught by Cappellini in order to evaluate the feasibility

of a shipping arrangement.


**As per claim 6,** Arunapuram et. al. discloses the claimed invention but fails to

explicitly disclose, wherein selecting comprises:

simulating iteratively until the set of desired resources is loaded into the set of

transportation units.

Cappellini teaches a search and retrieval system of transportation-related flexibility defined paths, with the feature of simulating iteratively the fulfillment of each group of the set of shipping rules in priority order until the set of desired resources is loaded into the set of transportation units ([0712] In the search to find a possible combination, the system now repeats the processes of FIG. 7 which were applied to an origin-destination pair, to every combination of origin-related first generation path waypoints) ([0182] These types of applications can make a mathematical model of the required transport capacities such as the loads, as well as of the available transport capacities such as the cargo containers, in order to substantially simulate the loading conditions within the containing space).

From this teaching of Cappellini, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transportation planning, execution and freight payment manager method of Arunapuram, to include the iterative simulation of loading shipments taught by Cappellini in order to find the most desired shipping arrangement.

**As per claim 11,** Arunapuram et al. discloses the claimed invention but fails to explicitly disclose a means for simulating the loading of the set of transports.

Cappellini teaches a search and retrieval system of transportation-related flexibility defined paths, with the feature of a means for simulating the loading of the set of transports([0181]; in the preferred embodiment, it is a multidimensional spatial system capable of handling the three dimensions of a physical object, i.e. the width,

length and height and the coordinate position within a predetermined space, for example a container) ([0182]; These types of applications can make a mathematical model of the required transport capacities such as the loads, as well as of the available transport capacities such as the cargo containers, in order to substantially simulate the loading conditions within the containing space.) ([0183]; Apart from performing loading operations and optimizations, this type of application can be used or easily adapted for the sole simple use of determining availability of space or capacity, for a new required transport capacity, i.e. to check if a load can conveniently fit in a transporting container that is empty or partially full with other loads).

From this teaching of Cappellini, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the _ of Arunapuram, to include the simulation of loading shipments taught by Cappellini in order to evaluate the feasibility of a shipping arrangement.

**As per claim 17,** Arunapuram et. al. discloses the claimed invention but fails to explicitly disclose, wherein selecting comprises:

simulating iteratively until the set of desired resources is loaded into the set of transportation units.

Cappellini teaches a search and retrieval system of transportation-related flexibility defined paths, with the feature of simulating iteratively the fulfillment of each group of the set of shipping rules in priority order until the set of desired resources is loaded into the set of transportation units ([0712] In the search to find a possible

combination, the system now repeats the processes of FIG. 7 which were applied to an origin-destination pair, to every combination of origin-related first generation path waypoints) ([0182] These types of applications can make a mathematical model of the required transport capacities such as the loads, as well as of the available transport capacities such as the cargo containers, in order to substantially simulate the loading conditions within the containing space).

From this teaching of Cappellini, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transportation planning, execution and freight payment manager method of Arunapuram, to include the iterative simulation of loading shipments taught by Cappellini in order to find the most desired shipping arrangement.

### *Response to Arguments*

4.       Applicant's arguments filed December 12, 2008 have been fully considered but they are not persuasive.

As per claim 1, Applicant argues, "It is unclear from the Examiner's statement which element of Morimoto the Examiner is equating with the set of source locations recited in the claims. Morimoto discloses only a single given source location and therefore does not teach or suggest selecting a source location. Morimoto discloses requesting shipping quotes from "a number of regional shipping companies" by specifying one source location and one destination location (See Morimoto, Figure 5, item 100 and col. 10, I1. 11-13, the company requesting quotes "receives [the] package

to be shipped"). The shipping companies producing the quotes do not change the given source location or destination location. Thus, Morimoto does not teach or suggest "a route determination module to select at least one source location from the set of source locations having the set of products when the order for the set of products is fulfilled."

However, in the abstract of Morimoto, it states, "A server is configured to send out requests for quotes to a number of regional shipping companies using a network. The server receives responses from the network and selects a route based on the responses." The "number of regional shipping companies" is construed as "the set of source locations" in the claim. Each regional shipping company is construed as a separate "source location". These routes are selected based on the regional shipping company which is believed to have distinct locations from one another. Therefore, the Examiner respectfully disagrees.

### *Conclusion*

5.      Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUSEYE IWARERE whose telephone number is (571)270-5112. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Gart can be reached on (571)272-3955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew S Gart/
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